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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,102	02/27/2002	Michael Schmid	P2001,0140	6793

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EXAMINER

LEON, EDWIN A

ART UNIT PAPER NUMBER

2833

DATE MAILED: 04/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application N .</b>	<b>Applicant(s)</b>	
	10/084,102	SCHMID, MICHAEL	
	<b>Examiner</b>	<b>Art Unit</b>	
	Edwin A. León	2833	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2004 and 13 April 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant's amendment and Request for Continued Examination filed March 23, 2004 and April 13, 2004 in which Claims 1, 3-5 and 8 have been amended, have been placed of record in the file.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gierut (U.S. Patent No. 6,122,161) in view of Kawahara et al. (U.S. Patent No. 6,288,993). With regard to Claim 1, Gierut discloses a printed circuit board configuration, comprising: a first printed circuit board (Module 2) having first defined dimensions corresponding to a first standard and a first portion (14b) of a plug connector (14), the first printed circuit board (Module 2) extending in a given plane, the first printed board (Module 2) being a main board of a data processing device (See Column 3, Lines 54-61) and including a CPU (See Column 3, Lines 52-65), memory components (See Column 3, Lines 52-65) and slots (See Column 3, Lines 52-65); a

second printed circuit board (Module 1) having a second portion (14a) of the plug connector (14), the second printed circuit board (Module 1) connectable to the first printed circuit board (Module 2) through the plug connector (14) to form a connected configuration; the first (Module 2) and second (Module 1) printed circuit boards both extending in the given plane when connected in the connected configuration; and the second printed circuit board (Module 1) having dimensions such that the connected configuration has second defined dimensions corresponding to a second standard. See Fig. 1 and Column 3, Lines 52-65.

However, Gierut doesn't show the main board including all necessary components for the function of the printed circuit board configuration.

Kawahara et al. discloses a similar connector using a main board (42) including all necessary components for the function of the printed circuit board configuration. See Fig. 3 and Column 2, Lines 18-26.

Thus, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the assembly of Gierut by making the main board include all necessary components for the function of the printed circuit board configuration as taught in Kawahara et al. in order to make the assembly suitable for use with computer systems specially computer-controlled game devices.

With regard to Claim 8, Gierut discloses a printed circuit board assembly, comprising: a first printed circuit board (Module 2) having dimensions corresponding to a first dimension standard, the first printed circuit board (Module 2) substantially extending in a given plane, the first printed board (Module 2) being a main board of a data processing device (See Column 3, Lines 54-61) and including a CPU (See Column

3, Lines 52-65), memory components (See Column 3, Lines 52-65) and slots (See Column 3, Lines 52-65); a second printed circuit board (Module 1) remove ably connected to the first printed circuit board (Module 2); the first (Module 2) and second (Module 1) printed circuit boards: forming a connected configuration when the second printed circuit board (Module 1) is connected to the first printed circuit board (Module 2); and both extending in the given plane when connected in the connected configuration; and the second printed circuit board (Module 1) being dimensioned to have the connected configuration correspond to a second dimension standard. See Fig. 1 and Column 3, Lines 52-65.

However, Gierut doesn't show the main board including all necessary components for the function of the printed circuit board configuration.

Kawahara et al. discloses a similar connector using a main board (42) including all necessary components for the function of the printed circuit board configuration. See Fig. 3 and Column 2, Lines 18-26.

Thus, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the assembly of Gierut by making the main board include all necessary components for the function of the printed circuit board configuration as taught in Kawahara et al. in order to make the assembly suitable for use with computer systems specially computer-controlled game devices.

4. Claims 3-7, and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gierut (U.S. Patent No. 6,122,161) in view of Kawahara et al. (U.S. Patent No. 6,288,993) and Leman (U.S. Patent No. 6,046,912). With regard to Claims 3-7 and 9-13, the combination of Gierut and Kawahara et al. discloses the claimed invention

except for the first standard being the  $\mu$ ATX dimension standard, the second standard being the ATX dimension standard, and the second printed circuit board having slots for receiving plug-in cards.

Leman discloses an assembly having a circuit board (300) having a well known ATX dimension standard and slots (306) for receiving plug-in cards. See Fig. 5 and Column 2, Lines 32-42.

Thus, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the assembly of Gierut and Kawahara et al. by using boards with a well known ATX or any other well known dimension standard and slots for receiving plug-in cards as taught in Lemman in order to make the assembly suitable for computer systems and for making the assembly more versatile.

### ***Response to Arguments***

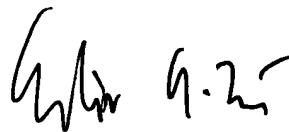
5. Applicant's arguments filed March 23, 2004 have been fully considered but they are not persuasive. In response to Applicant's arguments regarding Claims 1 and 8 that the Gierut reference doesn't show the first printed board being a main board including all necessary components for the function of the printed circuit board configuration, Applicant is reminded that this limitation has been newly added. Still, it is the Examiner's opinion that one of ordinary skill in the art would modify the assembly of Gierut by making the main board include all necessary components for the function of the printed circuit board configuration as taught in Kawahara et al. in order to make the assembly suitable for use with computer systems specially computer-controlled game devices.

***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edwin A. León whose telephone number is (571) 272-2008. The examiner can normally be reached on Monday - Friday 10:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on 571-272-2800, extension 33. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'EAL' followed by a stylized flourish.

Edwin A. León  
AU 2833

EAL  
April 24, 2004